Title: Prevalence, Distribution, and Correlates of the Use of Potential Reduced Exposure Products (PREPs)

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Research questions/hypotheses:

Examples

Important variations in interest in trying new cigarettes and the prevalence of use of new tobacco products exist among different subgroups of smokers.

Interest in trying and use of new products are correlated with attitudes, beliefs, and knowledge about smoking and cancer.

Intention to quit smoking is correlated with interest in trying and use of new products.

Smokers who smoke light/low-tar cigarettes for health reasons or as a method of quitting are more likely to have tried the new products than are those smoking regular cigarettes or those smoking light/low-tar cigarettes for other reasons.

Study description/rationale:

One of the most important issues facing public health today is the introduction of "potential reduced exposure products" (PREPs) into the tobacco market. These cigarettes or cigarette-like products are being marketed with an implied message of "harm reduction" or lower exposure to carcinogens and other toxins in tobacco. It is possible this newest strategy may hold the potential of health benefits; it is much more likely, however, that these new products will simply postpone or impede the cessation of tobacco use, leading to greater population burden of disease.

This paper will present overall baseline prevalence of the use of these new products and compare the prevalence of use among different sociodemographic groups. The paper will also examine the relationships between use of these new products and perceptions and use of lighter cigarettes and other measures of tobacco use behavior (e.g., intention to quit, smoking status (every day vs. some days), and use of smokeless/other tobacco products). These analyses will be used to examine, for example, whether or not smokers who try new products are also more likely to intend to quit smoking.

Previous research has shown that smokers of lower yield cigarettes are more interested in quitting and often see switching to these cigarettes as a step toward quitting. However, there is no evidence that switching to lower tar and nicotine cigarettes increases the likelihood of quitting. Therefore, the smokers most likely to quit smoking in the absence of these lower yield products may simply switch instead of quitting, delaying or preventing serious quit attempts. These same smokers may also be at greater risk of switching to the new tobacco products instead of quitting.

Therefore, further analyses will explore the multivariable determinants of interest in trying and actual use of these new products. These factors include: having a usual source of care, physician visits, information seeking, family history of cancer, cancer knowledge and worry, other health behaviors, general health status, risk perceptions, and beliefs about smoking. Multivariable modeling will be used to test and control for potential confounding and effect modification from these other risk factors and risk indicators.

Variable list:

Dependent variables

Interest in trying new cigarettes (TU-12)
Use of new types of cigarettes (TU-13)
Use of new types of smokeless tobacco products (TU-14)

Independent variables

Smoking status (current every day, current smoke days, former, and never smoker) (TU-1, TU-2); time since quit for former smokers (TU-6)
Cigarettes per day (TU-3, TU-4, TU-7)
Intention to quit (TU-5)
Myths about smoking (TU-9)
(Use of light/low-tar cigarettes (TU-10))
Reasons for use of light/low-tar cigarettes (TU-11)
Lung cancer risk perception (TU-15, TU-16 and TU-18, TU-19)
Perceived curability of lung cancer (TU-17)
Personal and family history of cancer (CH-1, CH-2, CH-4)
Knowledge about cancer preventability (CK-4)
General cancer worry (CK-9)
Health status (HS-1, HS-2)
Demographics and socioeconomic characteristics (age, gender, race-ethnicity, education, income, insurance) (HE-13, HE-14, DM-4, DM-5, DM-6, DM-7, HS-5)

Other possible control variables

Having usual source of care and doctor visits (HC-1, HC-3)
Information seeking (HC-9, HC-10)
Other health behaviors (fruit and vegetable consumption, exercise) (FV-1, FV-2 and EX-1, EX-2) and screening behaviors

Method of analysis:

Descriptive statistics and multivariable methods (linear/logistic regression and analysis of variance/ co-variance; contingency table analysis, correlations, and t-tests in the special case of two variables) where appropriate given the mathematical characteristics of the variables involved. Nonparametric techniques will also be used where appropriate.

References:

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Targeted journal:

Tobacco Control
Nicotine and Tobacco Research
American Journal of Public Health
American Journal of Epidemiology